GRAIN
SEPTEMBER 1939

A Reliable Source of Supply for

- OFFICIAL BROWN-DUVEL MOISTURE TESTERS
- MOIST-O-METER
- TAG-HEPPENSTALL MOISTURE METERS
- WEIGHT PER BUSHEL TESTERS
- DOCKAGE SIEVES
- BOERNER SAMPLERS
- BARLEY PEARLERS
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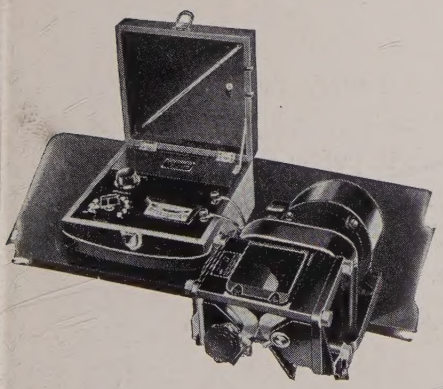

Tag-Heppenstall Moisture Meter. The only electric meter officially approved for grain by U. S. Department of Agriculture.

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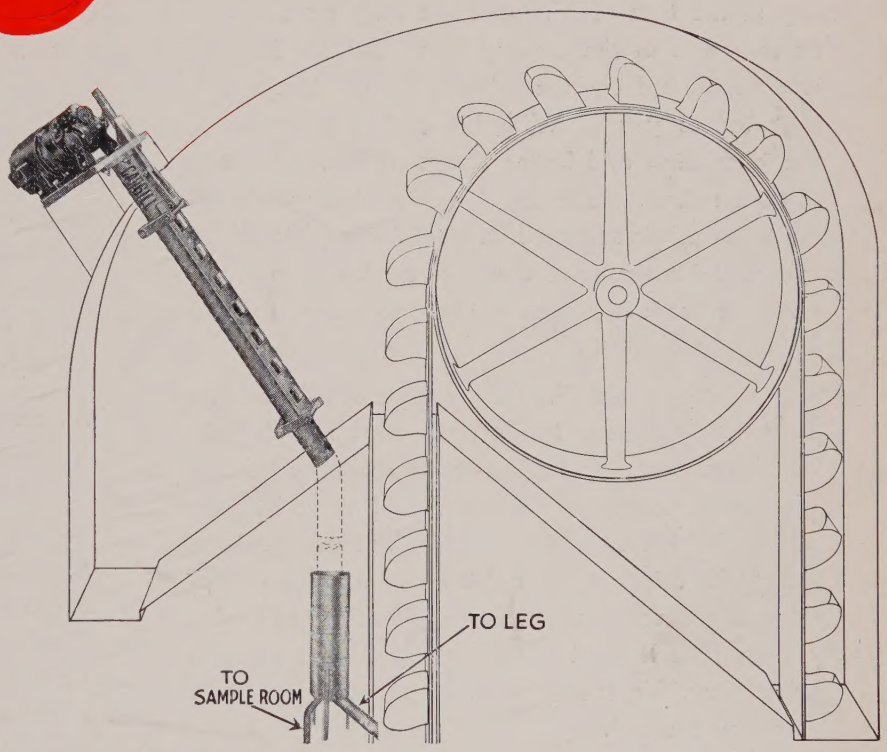

CARGILL AUTOMATIC SAMPLER

SHOULD BE IN YOUR ELEVATOR

1. The best and newest method of obtaining truly representative samples of grain.
2. Gives immediate knowledge as to what factors are in the grain run.
3. Offers opportunity to obtain test weight before grain is spouted to car.
4. Will eliminate set-backs on account of wrong mix.
5. Gives accurate information on grain run for grade in the elevator.
6. Provides an easy method of sampling stored grain for condition.
7. Needs no watching while operating.
8. Simple in design and easy to install.
9. Cost is fraction of savings.
10. Has been tested and tried, and found more accurate than any other method of sampling.
11. Brings sample by gravity to any part of elevator or office as desired.
12. Takes the guesswork out of loading boats or cars.

Write for illustrated descriptive folder.

HARRY B. OLSON

Times Building **Chicago, Illinois**

Selling Better Business

★

Calvin Coolidge once related that when he was a boy in the hills of Vermont the only merchandise he saw was in the country store, but his horizon was broadened by the advertising of things that appealed to youth. With his desires aroused for the interesting and better things in life, he strove to obtain them. Asserting that advertising performs a distinct public service, Mr. Coolidge explained, "It is essential in the first instance to produce good merchandise but it is just as essential to create a desire for it."

This, in a nut-shell, is the service of advertising. As Calvin Coolidge implied, the most useful grain plant appliance, the longest-wearing rubber belt, or the best mousetrap in the world will never be popular if hidden from the public. We cannot have desires for things we do not know about. No motorist was concerned about having knee-action in his car until he learned about its advantages through advertising. Yet it represents a marked improvement in riding comfort.

A century ago it took a long time to introduce any improvement in the way of living. Even the example of President Fillmore, who installed the first bathtub in the White House in 1850, failed to make people bathtub-conscious. Fifty years later it still was an uncommon thing to have a bathtub in the home. The invention was there but people did not care about it — not until advertising got on the job and sold bathtubs. Then everybody wanted them, and today no home is complete without one.

Only a short time ago our bathrooms were ugly as could be. Somehow, no one thought of making them beautiful. But when manufacturers began to advertise artistic tile, tinted bathtubs, and beautiful plumbing fixtures, everybody realized how much pleasanter life can be with beauty in the bathroom.

Our parents and grandparents were well satisfied with heavy staple foods of their time but we have learned to demand a balanced diet, with plenty of vitamins and minerals and a goodly assortment of light salads and tasty desserts, to say nothing of out-of-season vegetables and fruits. Our food is much better today, because our eating habits have been changed by advertising.

Where do you suppose the radio industry would be if manufacturers had not advertised their receiving sets? Only fifteen years ago home radios were practically unknown. Few people cared about radio or thought it would ever amount to much. But the infant industry embarked on a tremendous advertising campaign, through newspapers, magazines, signs, and circulars, and in a miraculously short time radio sets were introduced into four out of every five homes in the land.

It is the same with many other articles. Millions brush their teeth because advertising sold them toothpaste, and many children have even been persuaded by advertising to wash their necks and eat their spinach.

Better living comes not merely through natural desires, but through education, and advertising is one of the strongest forces in public education. Advertising is the salesman not only for better living, but for more efficient and more economical plant operation and maintenance.

Editorial

By T. C. MANNING, Uhlmann Grain Co., North Kansas City Mo.
President, Superintendents' Society

LOYALTY

NEVER in the history of the world has there been a time when the people of a country should search their souls for the courage, integrity and means of expressing their loyalty to their flag, the protector of their homes, their jobs, their religion and the various societies to which they belong.

Our loyalty is due first, to the flag of our country, the protector of our homes and our families; second, to our immediate families, the basis of man's happiness; third, our religion, no matter what our creed, the mental motive that leads us toward the light of immortality; fourth, our position in the scheme of things that make up civilization.

Whether industrial chief, financier, politician, preacher, baker or ditch digger, we must at this time exercise our loyalty by industry, sincerity, truthfullness, watchfullness and strict attention to the fulfillment of the task that is ours in whatever course our own countries, with their strength and courage, may take.

GRAIN
BOARD OF TRADE BUILDING
CHICAGO, ILLINOIS
TELEPHONE WABash 3111-2

A forum for
OPERATIVE
and
MECHANICAL
PROBLEMS
in
TERMINAL
ELEVATORS

PUBLISHED
MONTHLY
on the tenth
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IT *Did* HAPPEN HERE

. . . *Yes* and it Can . . . HAPPEN to YOU

. . . for there are just THREE factors that make a dust explosion possible, namely:—

1. — Dust particles — so fine you can't see them — suspended in just the "right" mixture of air;
2. — Relative Confinement of this volatile mass.
3. — Arc, coil, or flame that will give 1000 degrees or more of heat for longer than a split-second.

Without all of these factors being present a DUST EXPLOSION IS IMPOSSIBLE!

So start on the most important factor — your Dust problem — before IT IS TOO LATE!

We'll gladly make expert recommendations for the protection of your employees, plant and business — and without obligation. Our experience and satisfied clientele are your guaranteed assurance of a "dust-tight" installation.

ACT TODAY! GET STARTED BEFORE THE RUSH!

Our engineers will give your inquiries prompt attention. Phone, write or Wire

ALFRED C. GOETHEL CO.

Complete Dust Control Systems

2337 North 31st Street

MILWAUKEE WISCONSIN

FEDERAL ENGINEERS REPORT ON CHICAGO ELEVATOR EXPLOSION

THE dust explosion in the Rosenbaum grain elevator in Chicago on May 11—which resulted in a loss of nine lives, destruction of five large grain elevators, injuries to thirty men and a property loss of about $3,500,000—probably started with the ignition of grain dust at the bottom of one of the legs, or vertical grain conveyors, of Calumet Elevator "A," according to an announcement by the U. S. Department of Agriculture. A careful investigation of the disaster has just been concluded by Dr. David J. Price and Hylton R. Brown of the Department's Chemical Engineering Research Division.

Grain Processors Ahead

SEVERAL years ago research by Dr. Price's division showed that fine dust in suspension, such as is commonly found around grain elevators, is highly explosive, needing only a spark or flame to touch it off. A primary explosion and fire may be followed almost instantly with other explosions and fire. Fire made it impossible to determine condition of the equipment where the explosion originated.

The federal engineers say that further research work is needed to develop effective dust collection and control systems for terminal grain elevators. Losses from dust explosions have been reduced in the food manufacturing industries such as flour mills, starch factories, and other processors by safety and preventive measures against dust explosions and fires.

Weighing Restrictions Multiply Hazard

REGULATIONS prohibiting application of suction before weighing grain entering the elevator, in the opinion of the engineers, prevent the elevator operator from providing adequate protection. Foreign material in the grain received at an elevator is frequently of the type which may produce sparks if it enters the grain handling machinery.

The engineers believe some system should be developed whereby dust might be removed during the handling of grain, with supervision to prevent any operating abuses which may affect grain weights.

Effective Dust Collection Paramount

IT will be necessary to develop and install effective methods for dust control and collection in grain elevators to reduce dust explosion losses in this industry," says Doctor Price. "Until this is done, it will not be possible to make progress in dust explosion control in terminal grain elevators comparable to what has been accomplished in the control of dust explosions in other grain and processing industries."

The Department engineers also state that the increased use of motor trucks for the transportation of grain to terminal grain elevators and the hazards incident to their operation in dusty atmosphere emphasizes the need for further studies of this problem. The Department is studying measures for dust explosion prevention in grain-handling operations.

★

FRICTION CAUSES FIRE

A STUBBORN blaze resulted in a mill plant recently when fire started in a wheat conveyor which became stuck and caught fire due to friction. The conveyor's metal casing prevented the fire from spreading, but also hampered firemen in extinguishing the flames.

YOU KNOW ITS TRUE!
The Man
Who Works Safely
TODAY
Will Be Back on the
Job
TOMORROW

DRY ICE FOR SCREENINGS FIRE

DRY ice is to be part of the Buffalo Fire Department's regular equipment in the future following tests on its effectiveness in fighting small fires in bins of screenings. The dry ice absorbs both the gases and the oxygen.

The DESIGNING *Super*

Without any attempt at flattery, let me say that I have a great deal of respect for the opinions of the men who operate the grain elevators. The superintendents that I know, did not become superintendents by asking for their jobs, but by starting in and demonstrating that they had the knack for the grain business and the ability to manage a grain elevator plant. You hear a great deal about the "university of hard knocks." I think the grain elevators constitute a very important division of that institution.

WHEN an engineer sets about designing a grain elevator, he may or may not know who will be called upon to act as superintendent of the elevator when it is completed. Usually the superintendent is known, but sometimes that is not the case and it is really unfortunate that a plant of this kind should ever be designed without the engineer having the benefit of the experience of a good elevator superintendent; preferably the man who is going to operate it. I shall first discuss the situation with the understanding that the superintendent is available and that the engineer and superintendent are working together.

You might suppose that since the interests of the superintendent and of the designer are so nearly identical that there would be little chance for a difference of opinion as to what should go into the elevator. I can assure you that the designer has every reason to want his elevator to be satisfactory to the superintendent and no good reason to want it to be otherwise. One difficulty arises from the fact that the superintendent and the designer are seldom permitted to sit down together and decide just what kind of elevator to build and what to put into it.

There is a third party always in the deal and we may as well take him into consideration now as later. The OWNER is usually on hand and very inquisitive about what the elevator is going to cost and often has a Board of Directors and Stockholders back of him who are known to be quite insistent about such matters. The greatest differences of opinion are more likely to be between the superintendent and the owner, and the engineer is in the position of trying to reconcile opposing viewpoints. In a general way of course, all three are trying to reach the same goal, that is, to produce a good elevator capable of handling the business efficiently that it is desired to put through it.

Differing Opinions

The superintendent will be concerned about securing convenient arrangement, adequate handling facilities, and flexibility, including the ability to take care of changing crop and other varying conditions, and with all a satisfactory and safe place in which his men and himself can work. Any good superintendent knows that these are the requirements that must be met if he is to be able to give a good account of himself to his employer. Almost any owner would naturally prefer to build an elevator meeting these general requirements, but actually he is more interested in knowing that his investment will be a judicious one and will pay dividends. In other words, the superintendent wants to know what the elevator is going to consist of, and the owner wants to know what it is going to cost. Their different viewpoints may lead to arriving at quite different conclusions.

To give you some idea as to how great a difference of opinion may arise at this juncture, I recall not long ago sitting down with an elevator superintendent and after much discussion and sketching and estimating, working up a plan for an elevator that so far as the superintendent and myself were concerned, it appeared to meet every condition. When we took the owner into our confidence and he made the usual inquiry and was informed as to the probable cost, he very solemnly told us that it would be necessary to build something for just one-third the amount.

Now that sounds like a big assignment, and it is a big one. You might expect an engineer under those circumstances to become quite discouraged. However, the situation in one form or another arises so often that he cannot afford to become discouraged.

Without taking the time to drag you through all of the painless negotiations, I will say that by the exercise of patience and good judgment and with the usual tolerance to be found among the men connected with the grain trade, wonders can be accomplished.

Sometimes the superintendent can be convinced that he can do a very respectable job with less facilities than he originally had in mind; sometimes the owner can be shown that it is more to his interests to make an adequate investment than to invest anything at all in a plant that will not handle the business he wishes to handle.

Seeing Eye to Eye

If I am going to design a grain elevator or to remodel one . . . MODERNIZING is the current expression . . . I always begin by talking to the superintendent about what he wants to do with the elevator, how he wants to do it, why he wants to do it that way, and so on. If I have to ask a thousand questions to find out what I want to know and what it is necessary to know, then I will ask 1000 questions. Of course, in the process I will answer a great many questions and the result will be that we will come to a pretty definite understanding. We will not agree on everything, but it has been my experience that such differences of opinion as we will have are honest ones and are likely to provoke frank discussions. There is always a chance to learn something in a discussion of that kind provided you are open-minded and willing to learn.

It is the designer's duty to inform himself exactly as to the wishes of his client; in this case, the owner and his superintendent, and to give them the benefit of his unbiased judgment and experience in producing a plant that will meet their conditions, and that means all their conditions so far as circumstances will permit. Of course, an engineer being human, or nearly so, may make a mistake in judgment or otherwise. I am sure that should an engineer become so proficient as to make no mistakes whatever he would no longer be designing grain elevators, for I am convinced that there will be neither sorrow nor any grain elevators in that place. I do not even know what the grain elevator superintendents are going to do in that place; and so far as that goes, I do not know what the engineers are going to do there either.

Costs of Saving Costs

So long as I have mentioned mistakes, let me get off the subject and at the same time answer the question that you have often heard and seen in print in the grain trade publications — WHAT IS THE

MATTER WITH THE CONCRETE GRAIN ELEVATORS? It is my observation that structural failures in concrete grain elevators are far more common than structural failures in any other type of building construction. All over the country you can see concrete grain elevators that are going to pieces. In my opinion, the concrete elevator constructing business is on a lower plane than any other major branch of construction business.

I think the most common mistake made in constructing grain elevators is too much effort to keep down the first cost, too much leaving out of needed facilities, too cheap construction, too many contracts are let by owners who play one contractor off against another and often let a contract to one contractor at another contractor's bid. For this situation, the contractors and the owners together will have to share the blame. There is too much soliciting of elevator building business on the part of contractors. This soliciting is often done in such a way as to unconsciously lead some owners into the temptation of trying to get something for less than it is worth, not stopping at the moment to consider that every trade they make trades away some feature or facility that will later cost them a considerable sum of money. I think that an owner who awards a contract to one contractor at another contractor's bid takes advantage of both contractors and himself as well.

He certainly takes advantage of a contractor, if he encourages him or even permits him to go to the expense of making a bid for no other purpose than to get another bidder's price down. He takes advantage of the second contractor by forcing him into a position where he accepts a piece of business at a lower price than his figures show to be a fair one. He takes advantage of himself and is probably the heaviest loser in such a transaction in that he sacrifices facilities, convenience, and the factor of safety, any one of which may easily be worth more to him than the money saved by the procedure.

Sacrificing Safety

I believe that if an owner has so favorable an opinion of a contractor that he will award his construction work to him and to no other, then it should be awarded at that contractor's price. I am old-fashioned enough to believe that a contract entered into, construction contract or otherwise, should be on the basis of mutual benefit to the contracting parties. Certainly a contractor is not going to be benefited if he takes a contract on which he loses money, and an elevator owner is not being benefited if he gets a poor piece of construction work. I know and most of you know numerous instances of elevator construction that have resulted in no profit to the contractor and no satisfaction to the owner.

I can see no reason why the grain elevator construction business may not be profitably handled in the same manner that other construction business is handled. If an owner wants the benefit of competitive bidding from contractors, those bids should be received on a definite specified amount of work rather than by first determining the amount of money that will be spent and then determining what can be built for the amount of money available. Entering into a contract for a definite sum of money without knowing exactly what is going to be built for it is just another way of getting the cart before the horse. I have it from the chief engineer of one of our railroads that this getting the cart before the horse so far as grain elevator construction was concerned in his case inadvertently caused his company to build a grain elevator WITHOUT ANY FACTOR OF SAFETY IN IT. That is a pretty serious situation, but it is by no means uncommon.

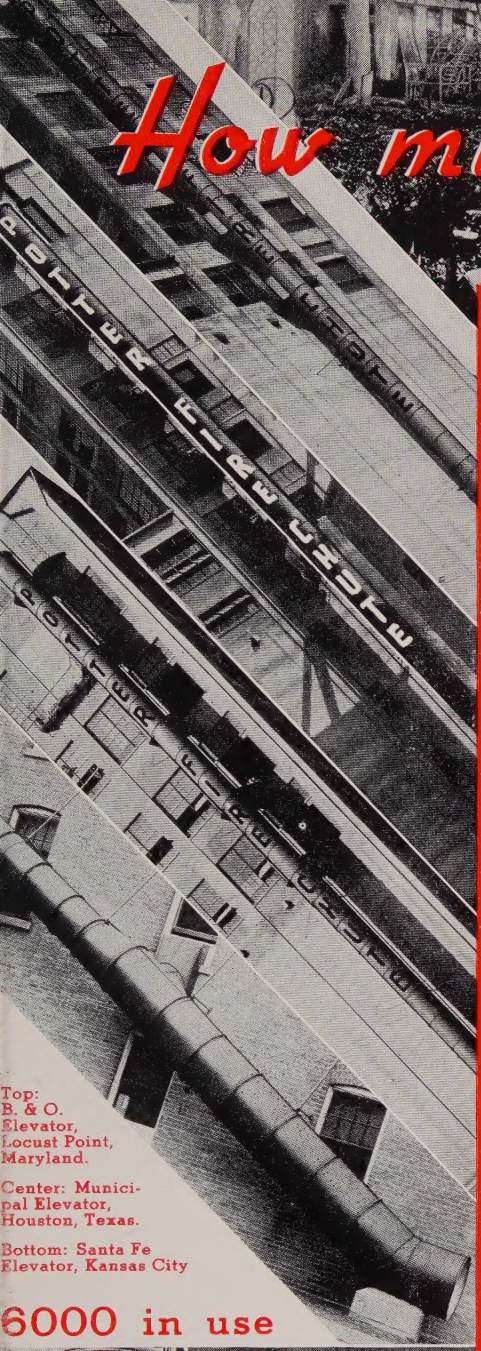
What is Fair Cost?

Please understand that I am as anxious to build elevators economically and at as little cost as anyone, but I believe it is bad judgment to build cheap elevators. One reason I think that such a desperate effort is being made to keep the cost of elevators down is that there is so much misinformation going about. As an example of this, in one case I made an estimate for a small milling elevator at about 20c per bushel of storage in the elevator. The owner appeared to be satisfied with the cost at that time, but later told me it was a ridiculous price, and that one of his neighbors had built an elevator similar to it at a cost of 8c per bushel.

I told him it would be ridiculous for him to pay 20c per bushel for an elevator if what he wanted could be built for 8c, but that he owed it to himself to find out whether his neighbor did build an elevator at such a low cost. The fact in the case was that his neighbor paid the material bills, and contracted only the labor cost, and even that did not include hoppering the bins nor furnishing and installing any machinery. The total cost was close to 20c, and when my friend learned the truth he authorized me to go ahead with his plans.

In another case, I made an estimate on some concrete storage bins at approximately the same price—20c per bushel. The owner was well enough satisfied and paid for preliminary plans and estimates. Later, however, he told one of my associates that I must be a robber giving him such a price as that since he had been reliably informed that concrete storage

How much For A LIFE?



Top:
B. & O.
Elevator,
Locust Point,
Maryland.

Center: Municipal Elevator, Houston, Texas.

Bottom: Santa Fe Elevator, Kansas City

6000 in use

HE'S INJURED!

Will Fellow Employees
Leave Your Injured
Worker to Die

?

OR Will They Carry
Him to a POTTER SLIDE
and Save His Life?

★

GOOD WILL
IS PRICELESS!

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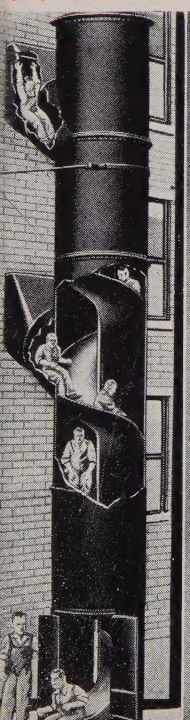
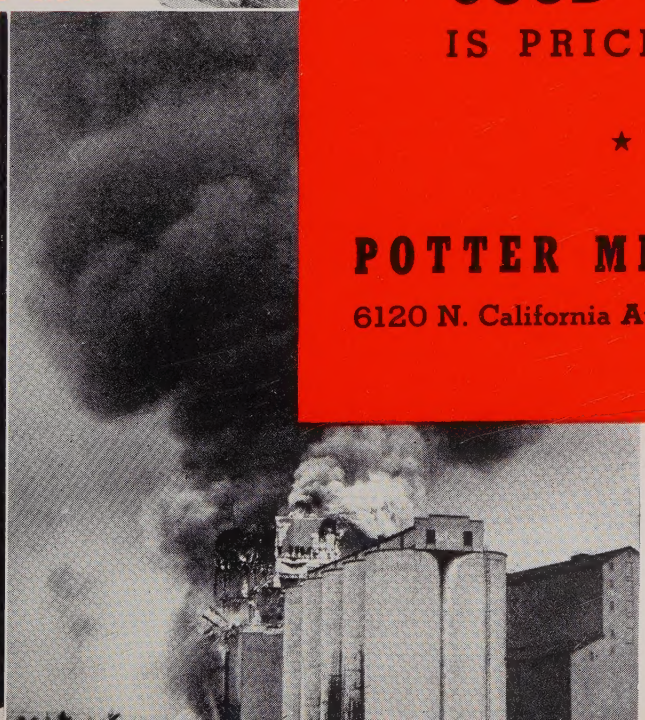
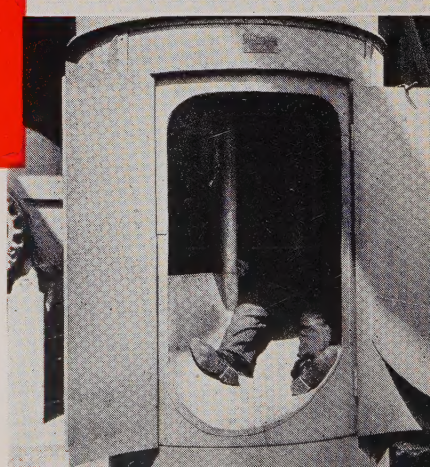






APPROVED
BY
UNDERWRITER'S
LABORATORIES

could be built for 2½c per bushel. He was asked if he believed that it was true, and he said that he did believe it.

"All right, what is the capacity of your wood elevator?"

"1,000,000 bushels."

"Now, Mr. Sharp, of course it is a wood elevator and an old one at that, but at 2½c per bushel your plant is worth $25,000. I don't really want the plant, but at that price I will just write out a check and take it off your hands."

He saw at once that he was mistaken and wondered why he ever believed such a report. I have often wondered myself just why it is that a man smart enough to conduct a successful grain business will allow himself to be so far misled. I think Benjamin Franklin got pretty close to the truth when as a result of some of his observations he said *"How fortunate a thing it is that a man being a rational animal can find or invent an excuse for whatever he wants to do."* And that applies also to believing whatever a man wants to believe.

The Super Knows Best

I made a statement that it was unfortunate that some grain elevators are designed without the benefit of the superintendent's advice and experience. It is comparable to designing a home without giving the lady of the house an opportunity to get into it the conveniences and niceties that make the difference between a *house* and a *home* to her.

There are fine points in the grain elevator business, and who could be better qualified than the superintendent to know all of the kinks and tricks that it takes to make it a personal elevator to him instead of just another elevator. It is no criticism of grain elevator superintendents to say that they do not agree on many points of elevator arrangement and equipment. I find that devices and arrangements that are heartily approved by one superintendent will be condemned by another. Superintendents of flour mills have even greater difficulty in agreeing on the fine points that it takes to make a good flour mill.

I have had just one experience of designing a flour mill and completing it before a superintendent was selected. The first superintendent, a man with a lot of experience, took charge of the mill and could find very little that was pleasing in his sight. He was particularly upset with the arrangement of the grain cleaning and tempering department. In the course of time a change was made. It was a year before I inquired rather timidly from the second superintendent about what he thought of the cleaning department.

He replied that it was not only one of the best things about the plant, but was the best cleaning and tempering department that he had ever operated in a mill. There is nothing surprising about it. Superintendents, like others, have to be guided by their own experience and judgment. The trouble, if it is trouble, comes from the fact that engineers fail to consult the crystal gazers or to read the tea leaves and thus find out what is going to be acceptable.

In concluding I want to say that in spite of anything I may have said that would lead you to believe the contrary, I am sure that the grain men who own the elevators, the superintendents who operate the elevators and the contractors who build them, are as high a class of men as can be found anywhere, and that I look forward to many more years of mutually pleasant association with all of them.

Note:

The foregoing pertinent article was prepared and presented by the late Oliver H. Horner, President of Horner and Wyatt, Consulting Engineers of Kansas City, before the Society's convention only a short while before his untimely demise.

Peeking through a Dust Bowl Blizzard

By HAMILTON K. PARKE

Huzzah! Hoorah! Hey, Hey! Let there be dancing in the streets. Let there be rejoicing and celebrations throughout the land. Come, one and all, age and youth, join voice in a jubilant shout to the skies! Peal out the good news, my dears, **your Daddy of Agriculture has solved the horrible dust bowl problem!**

Yes sir, kiddies, Papa Wallace and his gang of paternalistic swivel chair farmers have gone out and solved everything for you, and what is more, they will give you a cash down guarantee to vote, I mean, to boot.

Oh, it was easy, for them. You see, they went at it cautiously and economically. They had only portions of five states to deal with so they kept the expenses well below the billion mark. Yes, it was what you might call a minor project despite all those headlines and newsreels of black blizzards and desolate farmers. No, lambs, it was not all propaganda.

The Cause of It All

Are any people left living in the dust bowl? Yes indeed, there are oodles and oodles of them and a lot of them are better fed than you. Certainly, there are a lot of farmers there, too. But Papa Wallace has to have his helpers just like Santa Claus does at Christmas time. He could never have accomplished this tremendous achievement without them, why, you have no idea how terrible the conditions were in that dirty old dust bowl. You see, my little chicadees, a long, long time ago a bunch of irresponsible nasty mans went out West and killed Indians and got killed by Indians, and suffered all kinds of unthinkable hardships, and built homes and schools and communities, and expanded our great nation.

But their years of hard living, and their isolation from decent civilization wrecked their sense of morals—and they ploughed up the virgin soil of the rolling prairies! Yes sir, they stuck that old plow right smack into the ground and grew crops. Hah! Little did they care that less than a century from then a drouth would come along and blow away some of that elegant top soil they so rapaciously plowed!

Time, marches on! Yes, my friends, I know that is a radio program. It is on the air following the fireside chats. Time marched on from the mush bowl of the pioneers to the dust bowl of the Wallace years. 1935 saw choking, black blizzards cluttering up the western landscape; saw a good many fields denuded of their crops and shrouded in a gray cloak of dust. Countless thumbs were sprained as hitch hiking farmers lined the highways seeking rides to California's "heavy dews." The foul deeds of the pioneers were coming home to roost.

Daddy to the Rescue

But don't think for a minute, my pets, that your grand old Daddy of Agriculture was asleep. As Napoleon would fling a flanking movement so strategically and effectively in the heat of battle to bolster a weakened position, so did Marshal Wallace rush reserves to the besieged dust bowl. A veritable army of them—soil experts, publicity camera men, expert soil experts publicity writing men, special expert soil experts, and super-hyper-**ne plus ultra**-publicity men bulwarked by the usual horde of manual laborers always necessitated in setting up and keeping comfortable a great army. And, my dears, did the dust fly then!

The experts experted around and sent in a frantic call for more experts. The strained camera men were on twenty-four hour call to catch a family leaving the district or a dust cloud moving in. One doughty ace of the lenses almost was mentioned for the Congressional Medal for catching a charming group of dying cows at a dried up water hole. The portables of the writers fell by the wayside in huge piles of burned out typeless and keyless wrecks. And a white blizzard of publicity sheets swept the nation.

The experts agreed that the fertility of the area was destroyed. The soil was dead. The busy farmers about them verbally sustained that conclusion. The soil in the spots where the experts were experimenting **was dead**—always had been and always would be. Then the farmers spat on their horney hands and philosophically continued plowing under their drouth-shortened crops.

Yes, little ones, there really was a drouth. That southwestern country has drouths ever so often, just like you have colds in the head. As long ago as 1803 a gentleman by the name of Palatzer surveyed that land and reported at that time that it was subjected to periods of insufficient moisture sandwiched in between the normal rainfall years. Always had been and always would be. Also, the legends of the Indian tribes are replete with century old tales of great dust storms sweeping that country. Yes, of course, dears, that was long before the foolhardy pioneers stuck that old plow right smack into the ground.

Following a Contour

But the valiant troops on line of administration duty fought on. They fought through 1935. They fought through 1936. They fought through 1937. They are still fighting. Ah, 'tis a glorious battle, indeed! And, like soldiers and campaigners the world over, they learned as they fight. One corps evolved the method of "contour planting." They immediately wrote long and detailed letters to their commander. He, in turn, assimilated the findings and turned them over to his superior with a recommendation that this new idea be followed through. The commander scanned the report and sent it on higher, with appropriate remarks. The higher-up read the recommendations and mailed it to the divisional head. The divisional head read the higher-up's signature and sent the bulky dispatch on to Washington. At the Capitol, the report found reception in the hands of a member of General Wallace's staff. He glanced at the word "planting" and franked it—franked it, dears, means mailing without postage—to a farmer in lower Oklahoma with a request that the farmer mail him forthwith the real dope on the situation in regards to contour farming.

Mr. Dust Bowl Farmer was laconic in his reply. In substance, he said, "Dear Sir: This contour farming you mention—which means plowing your furrows around a hill instead of straight up and down—meets with my approval and the rest of us around here agree, too. We have been doing it for years. In fact, it was the head man of your Party who first made record of this idea. I refer, of course, to Thomas A. Jefferson, who advised farmers to do this one hundred and

fifty years ago. I am sure glad that you boys have taken at least one idea from him."

Another brilliant battalion in Wallace's dust bowl army zealously sing the virtues of terrace farming. This method is a whooperdoo, my children. The terraces are thrown up every two hundred feet. They are about forty feet broad at the base, fifteen inches high, and, by following the contour of the land, serve as dikes to impound the rainfall. It works splendidly except for the fact that it is too costly for the average farmer and also plays hob with his heavy machinery. The farmers themselves have developed an appliance which gives the same welcome results of terrace farming without its disadvantages. This is a simple little gadget called a basin lister. It kicks out small earthen dams across the furrows at intervals of eight or ten feet thus creating basins which catch and hold the all-important rains. Rumor hath it that this, too, will shortly be duly discovered and reported on to official Washington by the keen eyed experts of Daddy Wallace.

But the true genius of the political experts found full flower in their advocacy of cover crops. A cover crop, my little ones, is any crop except wheat. Here was something they could really get their teeth into and go whole hog. It was an idea founded upon proved facts, and the big fact that the worthwhile farmers in the dust bowl had been adopting a cover crop program for years gave the experts solid ground upon which to build a multitude of factual reports and glowing prognostications. Bulky reports and bulkier forecasts which must have delighted the great heart of Daddy Wallace—and made the jobs of the experts more secure. It justified the expert's existence; it justified Daddy Wallace's dust bowl program; it justified additional publicity releases informing the voting public at large of the wonderful work being done; and it justified the hard working farmers, who had originated the idea in the first place, in wondering how many additional taxes would be levied to pay the cost of the experts "discovering" the farmer's own idea.

And now, my little ballots, we come to the most colossal, stupendous, super-magnificent stage of the game. Here is where our Daddy in Washington was really going to go to town. He was going to purchase six million acres of the dust bowl territory and turn it into an experimental station with the ultimate view of making it a monument of what could be done with the "destroyed soil." He began operations in a small way. Purchased a half-million acres in Texas at the tune of three dollars per acre—and then discovered that a good deal of the land in that purchased tract was already heavily-sodded grazing land.

The resultant howl from the eagerly investing farmers of the dust bowl brought that venture to a sudden eclipse. They felt that if any land was bought around that section, they, the proved farmers, should have first call. For they not only worked the land, they had faith, born of experience, in its future fertility. Perhaps I should explain a bit, my little taxpayers (what would we do without you!) perchance you do not know that the dust bowl area comprises ninety-six million acres of which only thirty-two million acres are subjected to the plow. The remaining sixty-four million acres are still, and will be, lush grazing ground.

The Rains Came Back

Well, the glamor of the investing farmers slowed up the buying program of government funds. After twelve month's purchasing obscurity the fond father in Washington permitted an allotment of ten million dollars to be devoted to only land that the farmers in the dust bowl agreed was barren. To those segregated spots the army of experts, et al, could concentrate and theorize away to their hearts content. Their major battle had been won. The dust bowl had been saved. How? **The rains had come again!**

It is a moot question, my children, as to which was the greater: the particles of dust in the black blizzards of the dust bowl, or the white sheets of publicity that so tantalizingly descended upon every corner of the nation in a wholehearted attempt to make the voter administration-conscious.

Expert armies, newsreels, publicity writers, untold amounts of tax monies—all sacrificed on the altar of Government grandeur. Political prestige built up at the cost of your hard earned money and mine. And all for what? To allow Papa Wallace to prove to us children that we cannot take care of ourselves and our families. To allow the Daddy of Agriculture to spend millions of dollars on his favorites—for discovering that the backbone of this country, the farmer, knows what he is doing!

Ill Wind Blows Who Good?

by Harry Duvalle

It happened in the shadows cast by the venerable walls of a mighty terminal elevator. A group of old heads were conversing as they sought relief from the direct rays of Old Sol. Suddenly, something was uttered which blanched the leathery faces of the circle and drew shocked, accusing eyes to the speaker. Consternation reigned. The monstrous tanks trembled on their deep foundations; the car dump collapsed; forty-nine million weevil committed suicide.

The words which caused this chaos were, "I AM GLAD WHEN I SEE A POOR, SHRIVELED-UP WHEAT CROP!"

Coming from a high priest on the altar of Grain, this was *beyond* heresy—it was catalclysmic!

Unmindful of the uproar he had caused, the Old Timer went on: "Yes, indeed, I am glad to see it. You know, it is an ill wind that blows no one good. Someone always benefits by the other fellow's disaster. A year of uniformly heavy wheat sees the miller purchasing direct, filling his storage while the terminal operator whistles for business. Good for the miller and bad for the operator. Then, along comes a bad year, a year that sees the pesky black rust sucking the life's blood from the wheat stalks. Result: light, shriveled berries that must be taken into a terminal elevator, mixed with heavy wheat, and put on the market for what it *now* is—an acceptable, wholesome, contract wheat. You see? The same wind that blew ill for the millers when it carried the devitalizing black rust spores to countless fields, blew good for the operating terminal elevators. And, by all that is holy, it also shows again the vital, irreplaceable position of the terminal elevator industry!"

The Speaker ended his words. Upon their silence came a greater silence—the silence of thoughtful reflection. The arteries in the faces of the listening circle once more took up the pulsating business of life. Lack lustre eyes gleamed anew with the gladsome fighting spirit. The tanks stopped their tremblings and became more secure than ever upon their solid foundations. The car dump miraculously righted itself . . . Forty-nine million weevil stirred and decided they could give the Superintendent a run for his money after all.

The Black Deeds of Black Rust

★

GLARING down from the throne of huge black headlines, the malevolent despot Black Rust throws the chill fear of disaster into the very heart of agriculture. In all the dread years of 1904, 1916, 1925, and 1935, many bushels of wheat were weekly deducted from the estimated harvest figures as more and yet more fields succumbed to parasitic ravishment. Already a spotted portion of the total winter wheat yield is affected, and indications are that the spring wheat crop may be even harder hit.

Cutting a hundred-fifty-mile wide swath from central Indiana to eastern Kansas and southwestern Nebraska, the spores of the black rust fungus sweep along on the winds to drop their deadly might upon the helpless stands of wheat. Nothing can stop them. They are invincible.

In the opinion of grave observers, the widespread outbreak of the rust in the central west is due to the spores of the fungus being carried by the wind from the southwest, particularly Mexico and Texas. Holding blameless the midwest of barberry bushes—exclusive host to certain stages of the rust spore development—experts agreed that the distant southwest is alone guilty in foisting this havoc upon the fields. But somewhere in the United States barberry bushes must exist because they are the only plants that black rust spores infect. The life of the rust fungus cannot be perpetuated without the common barberry bush.

Scientists have learned that the black spores cannot produce stem rust directly, but must pass through a rest period before they can germinate. All this takes place in winter on old straw and stubble. Then in the spring the black spores germinate and produce small, colorless spores. These innocuous babies are picked up by the wind and carried to barberry bushes if there are any in the community. Bright yellow cluster cups containing thousands of rust spores develop on the under side of the infected leaves of a barberry bush. From the bushes, the now militant spores are blown to grainfields, where the rust damages grain again if weather conditions are favorable. And favorable weather conditions for these imps of Satan mean ample precipitation.

Black stem rust is found mainly on the stems of small grain plants. It steals the plant food which should be used in the formation of plump kernels. When this cancer of the wheat field has fastened its grip upon a plant, the grains become shriveled and are light in weight. This results in a three-fold disaster: fewer bushels per acre, fewer dollars for the farmer, and higher bread prices for the consumer.

Orange leaf rust, attacking only the leaves of plants, achieves the identical heinious results of its brother, black rust, but by growing especially bred resistant wheat, orange leaf rust can be overcome. After black rust invades a field there is practically nothing that can be done about it.

It is high time for rural and urban people to cooperate more closely with pathologists in their long and tedious fight against Public Enemy Number One, the common barberry bush, who so smugly harbors the arch-criminal, Black Rust Spore. Uprooting and killing barberry bushes breaks the life cycle of the fungus and will prevent recurrent epidemics of black stem rust in future crops of wheat, oats, barley, rye, and about seventy-five wild and cultivated grasses.

THATCHER TO STAY

Agronomists at Minnesota University Farm, after testing eight rust-resisting Spring wheats, announced earlier this month that Thatcher is the only variety which can be recommended for use in the Northwest.

Since Thatcher is the most commonly grown and has been accepted generally, the value of the newer varieties were compared with it, but they all failed to surpass it. And at that Thatcher is susceptible to leaf rust and scab, has a relatively low test weight and a tendency to dull or "off color" appearance, even when harvested under ideal conditions.

IMPORTANT APPROACHING DATES

October 1-3. Grain & Feed Dealers National Association, Nicollet Hotel, Minneapolis.

October 10. Chicago Chapter, SOS.

October 16-20. National Safety Congress, Atlantic City, N. J.

October 17. Kansas City Chapter, SOS.

October 31. Minnesota Chapter, SOS, Minneapolis.

April 1-3. 11th Annual Convention, Society of Grain Elevator Superintendents, Royal York, Toronto.

May 10-14. National Fire Portection Association, Atlantic City, N. J.

...Yes, PR

IT Stands to Reason

For you with big investments in plants and contents, the best weatherproofing is invariably the cheapest — and therefore the most profitable.

Furthermore, you will also agree that weatherproofing grain and grain processing properties early obviously avoids costly disintegration and safeguards against the development of new movement cracks as well.

And wouldn't it appear that a thick, built-up, flexible, "skin-like" product which requires 5½ times as much material for application is the answer to all of these requirements?

Call in BEN J. MANY C

OFESSOR QUIZ:-

Weatherproofing is necessary because water not only damages the grain, but is the sole cause of deteriorative action in any concrete structure.

Question:

Why do you say water is the sole cause of the deteriorative action?

Answer:

Steel corrodes and expands, but water alone causes this corrosion . . . Ice causes serious damage, but it requires water to create ice . . . All other deteriorative action is the direct result of moisture in the concrete.

Question:

Is it difficult to make concrete tanks watertight? If so, why?

Answer:

Yes, it calls for exacting skill because of the many movements caused by the loading of a single bin or the erratic unloading of all tanks, expansion and contraction due to alternate wetting and drying, and many of the other factors with which operators are familiar.

Question:

How can you make a tank weather-tight when you must contend with these continual movements?

Answer:

It is a conceded fact that one must provide a very heavy, flexible film. This must be sufficiently thick so that it will stretch over cracks which are continually opening and closing.

Question:

Are there any such materials available?

Answer:

Yes, there are basically two. One is a commonly used low-cost material which will remain flexible for only a short time when exposed to the sun and elements. The other is a high-priced material whose ingredients are virtually not affected by weathering.

Question:

Considering this, how should one treat his tanks for longest life per dollar expended?

Answer:

IN-FIL-TRO-FLEX, an expensive, durable material . . . FLEX-A-COTE, a cheaper, less durable product worthy of your specification wherever price comes first.

Question:

Then why is there so much groping with the problem of weatherproofing grain tanks?

Answer:

There isn't any problem as far as we're concerned for we've solved it in this way:

We manufacture our own products especially prepared to meet all the above requirements — but we sell no material. Instead, we handle all our work under contract and guarantee for your greatest satisfaction and savings.

Equally important, our engineers and mechanics are all experienced in this very exacting type of work. Why not consult us today?

"Good Will Is The One and Only Asset That Competition Cannot Undersell or Destroy"

RPORATION

30 N. LA SALLE ST.
CHICAGO, ILLINOIS

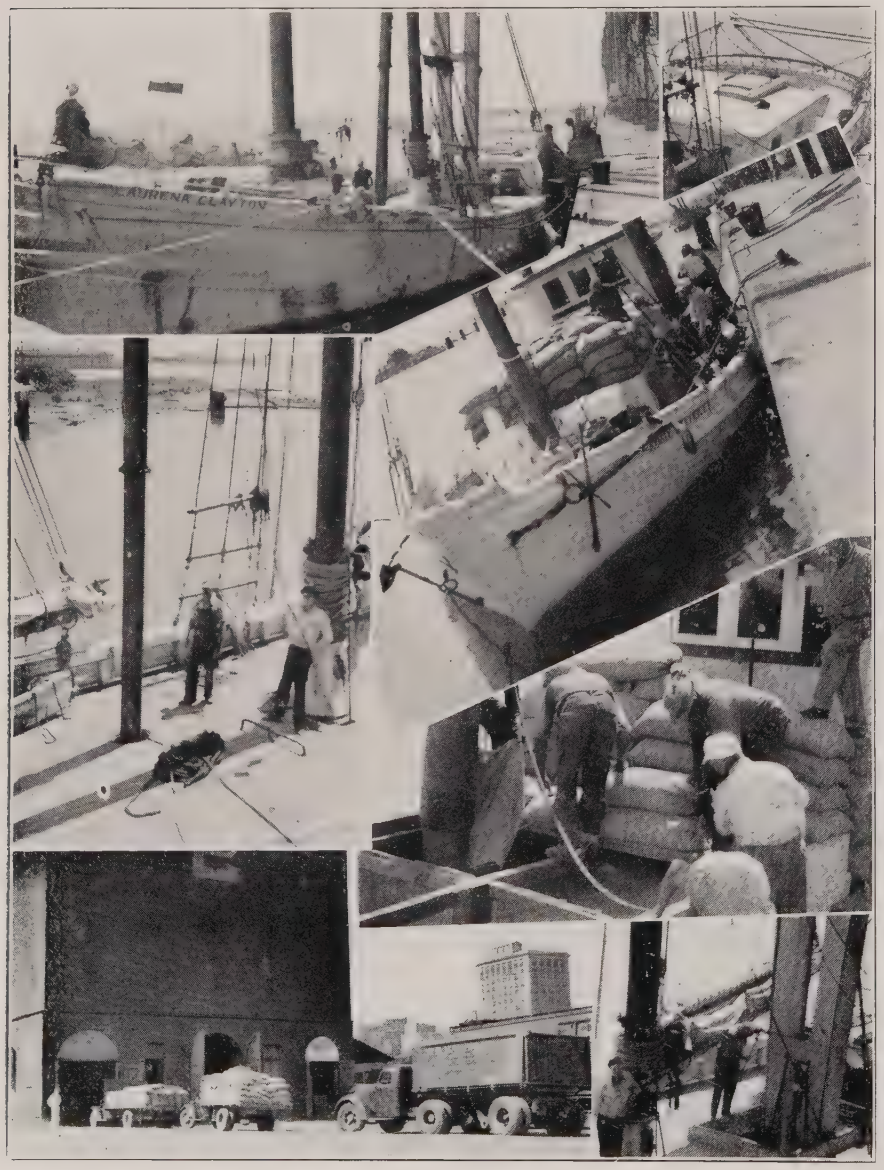
Another Kind of "Sucker"

Writes FRANK PETERSON
Norris Elevator, Baltimore

BUSY as a hen with one chick since the first of last month, but took time out and slipped down to the Western Maryland Elevator last Sunday and shot these pictures. Had to face the sun so they are not so clear as they might be.

A "sucker" is just the thing for "bay" boats in that such a system is flexible and well suited to this type of skiff that brings grain into Baltimore. Many of them have just two square hatches—fore and aft—and with manholes amidship. The "sucker" must be of small diameter so that it will pass through these small holes.

The marine leg is also small for the same reason. Readers of "GRAIN" will note that on the Laurena Clayton both sucker and marine leg are used at the same time. (Shovels are attached to the marine leg to drag the grain from the wings of the boat, just as on the Great Lakes.) The Western Maryland Elevator has two "suckers" and one marine leg—which are not movable along the dock although they have quite a swing to cover holds of ocean-going vessels. The Pennsylvania Elevator has one sucker and the B & O has two. The Western Maryland does the majority of boat unloading because of faster service and being able to handle two boats at one time.



Left to right shows "sucker" and marine leg in operation at the same time on one small boat; Looking over stern of typical "Bay" boat; Suction pipe inserted through eighteen-inch manhole in deck; A "full cargo" including deck load. Often one boat will have as many as ten lots of grain aboard; Pouring grain from deck into hold where "sucker" takes it out; My old "Number Two" and incoming grain. The dump truck hauls 400 bushels; and Marine leg inserted through small hatch in Bay boat.

Our elevator, Old "No. 2," gets the trucks "and how." We handle 'em three at a time and have run as high as forty-one in eight hours. And "man" some of 'em are "whales"—as anyone can see in the picture.

Plenty of fine wheat coming in now.

(Thanks for the most interesting illustrated story, "Pete." Know everyone will enjoy your remarks immensely.)

★

SORRY!

IN listing the exhibitors at the Milwaukee Convention of The Society of Grain Elevator Superintendents, mention was made of the six exhibits. Only five, however, were listed.

The one left out (and unintentionally) was the Superior Separator Company, Minneapolis, whose grading machine exhibit attracted many of the attending delegates.

Sorry!

★

SINCERE APOLOGIES

THE following letter came to us from L. P. Kimball, Engineer of Buildings for the Baltimore and Ohio Railroad Company; —

"I have noted the following statement under the heading — Clean Daily While Idle — on page 6 of the issue of GRAIN for June, 1939: —

" 'Our houses are cleaner now than in the old days,' according to Joe Schmitz. 'The B. & O. even went so far as to spend an extra $50,000 to trowel inside walls smooth—and look what happened.'

"It would be interesting to me to know what did happen."

(Nothing, Mr. Kimball. This is an error on us. The elevator referred to should have been the Western Marvland.)

★

PREDICTS 48 PAGES

I, too, want to raise my voice and compliment "GRAIN." You've done a darn smart job. If my copy is a sample of what you plan on doing I will make a bet with you that you soon will be running at least 48 pages.—W. H. Evans, President, Evans Associates, Chicago.

CONFUSION BETWEEN INDIAN MEAL AND ANGOUMOIS MOTHS

EVERY mail brings in reports of moth infestation. Reports from many sections have led to an official announcement that at least one quarter of the old corn crop is believed to have been irreparably damaged by the moth. Truly this is one of the buggiest (or should we say "lousiest") years in a long time.

Close examination, however, reveals much confusion as to the type of infestation prevalent and the treatment suitable for its cessation. Identification is readily within everyone's grasp simply through the literature of our reliable fumigation advertisers.

Extermination, and that's what seems to be bothering many, can be accomplished by remembering that the Indian Meal Moth is characterized by purely surface infestations and that a contact spray which will not impart an odor to the grain is required.

Spiders; Sick Wheat

IN the case of the Angoumois Moth a "top" fumigation is necessary, — one which will effectively penetrate the top ten to fifteen feet of grain in a bin and get its good work in before it diffuses off into the atmosphere.

Some complaints about the perfusion of spiders habitating grain and processing plants has also been heard. Here again a treatment as in the case of the Indian Meal Moth is mandatory for elimination.

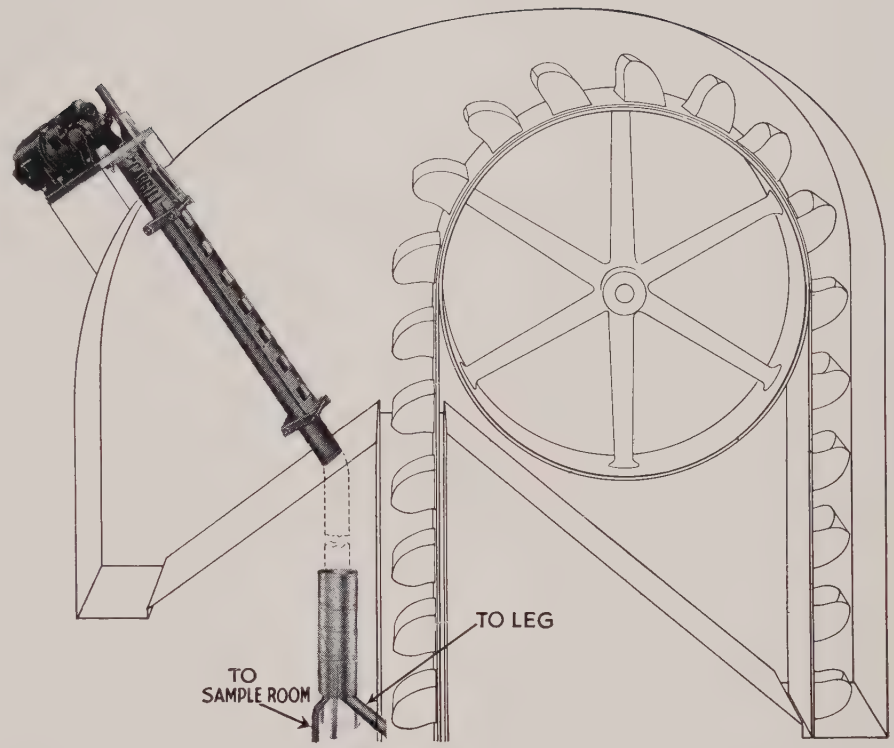
Heaviest of all are the inquiries about using fumigants for the avalanche of "sick" wheat coming in. The aspergillus might be readily killed in the initial stages, advises one unimpeachable authority, but must an elevator to treat before symptoms appear? In the advance stages the work of the fungus has been done and there is nothing a fumigant can do to correct the situation with the possible exception of helping to prevent its spread.

At that it would be cheaper to fumigate every incoming bushel than to have it become "sick" and have to suffer the discounts.

★

MADE HIS HEART FEEL GOOD

"GRAIN": — You made one young man very, very happy when you wrote you'd try to find him a job at his first love,—inspecting grain. (See Classified Ads.) This young fellow is a fighting Irishman and wants the world to consider him rather hard boiled, but his eyes had a moist glisten to them when he looked up from your letter. You made him feel that there really is some chance of getting out of the groove that fate has thrown him in. He's an ambitious rascal, an expert in his line, and his chief aspiration seems to be to provide for a couple of kids that call him "Daddy."—Anon.



Here's the newly perfected Cargill sampler that operates automatically to take an accurate sample from cars loaded in or out, or on boat or barge loads. A perusal of its operation shows it obtains a much more representative sample than the five probes generally taken, and immediately reveals test weight and other factors in the grain run BEFORE grain is spouted to car, thus eliminating set-backs and guesswork because of the wrong mix. Accurate information on grain run for grade in the elevator, and an easy method of sampling stored grain for condition is claimed for this simple, inexpensive, fool-proof device that will bring a sample by gravity to any part of the elevator or offiice as desired.

★

EMPLOYMENT BUREAU

A confidential, complimentary service. Address your inquiries to "GRAIN", Board of Trade, Chicago

Positions Wanted

Grain Inspector:—Experienced, ambitious grain inspector seeks connection with grain or processing plant. Employed at present but not in this favored work. Best of references. Address 39R1.

Superintendent-Buyer: — Experienced in handling all varieties of wheat and coarse grains, domestic, milling and export. Specialized in barley, oats and rye past three years. Go anywhere. Best of references. Address 39M1.

Millwright: — Thoroughly capable and experienced. Handle any sized job. Willing and reliable. Address 39M2.

Positions Available

Construction Superintendent: — Give experience and references, salary and availability to leave country. Address 39M3.

Elevator Superintendent: — Opening in South American million bushel corn plant. Would expect contract for term of years. Advise monthly compensation (American money) expected. State experience, give references, age, etc. Address 39M4.

★

CHAIRMAN

J. H. IRWIN, Manager of the Western Grain Company, Ltd., Fort William, was chairman of the general committee in charge of the "Wake Up and Live Electrically" show which appeared at the Prince of Wales arena June 7th.

From all reports, this was a performance well worth seeing.

B - A - R - L - E - Y

DR. JAMES G. DICKSON, Planthologist,

College of Agriculture, University of Wisconsin

(Concluding Installment)

As to the barley varieties suitable for malt: I think the whole country is becoming variety-conscious and probably has paid more attention to varieties than the problem deserves. Likewise the varieties have caused more argument and more disturbance and demands for distinction than any one thing,—in general with little justification for it, with a few exceptions which are out of the six row malting barley class.

Prohibition Effected Varities

The Manchurian barley was grown in the west and the Oderbrucker in the east. These two varieties prevailed up to 1914. Then, of course, barley became purely a feed crop, and the result was that less emphasis was placed on varieties. New varieties came in. There was the "smooth-awn" variety, with little attention paid to malting quality. It so happens that in general two "smooth-awn" hybrid varieties, "Velvet" and "Wisconsin Barbless," had the capacity to yield more per acre than the old varieties. The result was that when prohibition was repealed, and the demand for malting barley came back, the old types such as "Manchurian" and "Oderbrucker" had pretty well gone out of the picture in the Spring Barley area. That was not true of the Minnesota and North Dakota Red River Valley,—the Manchurian variety was still in there. The information we have been able to obtain, as given us from year to year, has given us a pretty good idea as to how these barley varieties were effective as far as production is concerned, and the area in which they are now grown. For instance, "Wisconsin 38" and "Wisconsin Barbless" are now grown extensively in the Red River Valley. It has replaced "Trebi" and is gradually replacing "Manchurian." They are occupying 60% of the acreage in South Minnesota and in Wisconsin, approximately the same.

In general, there is no question, that a superiority for brewing purposes is found in Oderbrucker or Manchurian barley. They are, on the other hand, very low in yield in most of this area and it is a problem to get the farmer to grow them. The difference in the barley malt was not sufficient to enable the industry to pay the necessary premium to stimulate production on these old time malting barleys so the problem has been one of gradually adjusting the industry to these new "smooth-awn" barleys.

We hear occasionally about the poor barley and the poor beer, but in my intimate association with the brewing interests and the malt interests I would say that they are today making beer out of these new barleys which is far superior—under the conditions under which they are dispensed—than beer supplied from the 1914 barley. They have not been able to do this without adjusting their process.

A small differential is not going to put these old time varieties back. The net result is the gradual increase in these new varieties. This will continue until such time as we have a new variety which is better adapted to the industry for which they will pay a premium and net the farmer a better return. That is not going to be an easy problem.

Premium Headaches

Comparing the "Wisconsin No. 38" with the old type barley there was an increase in yield of 26% over a five year period. That means a pretty high premium if they are going to get the old time barley back. The practice of the industry, to handle their raw materials through terminal elevators, would introduce a problem which they could not cope with if they did attempt to pay that premium for the old barley. You could not distinguish between the "smooth-awn" and the "rough-awn" barley so they would probably pay a premium for what they are getting now.

Even in Canada the presence of "smooth-awn" barley is showing up. As these areas of "smooth-awn" barleys increase in Canada they are going to have more trouble to keep it out of their grades.

Question: "What is the difference between "smooth-awn" and the other barley for malting?"

Dr. Dickson: If the "smooth-awn" barley is properly handled there is little difficulty. However their power to convert starch and protein into soluble forms are somewhat lower than in "Manchurian" or "Oderbrucker" barleys, nevertheless there is still enough diastatic power to handle it. About 80 per cent of the barley coming to the malting trade today is the "smooth-awn" barley. We get an occasional car that is pretty nearly pure "Manchurian."

Rust On Barley

The question has been asked as to the effect of rust on barley. We have been doing quite a bit of work on the influence of rust on barley and have carried on for three years now data on this subject. When we have stem rust on barley it produces an immature barley. The kernel may be apparently plump, but there is a tendency of these kernels to be greenish in cast even if the straw has ripened fully. The rust damage in general has not increased the protein content in barley. The quantity of malt extract is much lower. It behaves more like a hard barley.

The same thing is true of the barley that is cut on the green side. The general tendency has been to cut barley when the straw is still green. They cut with a binder through this area, and they fear that in a week or ten days the crop will be hit by a storm so they have been cutting on the green side.

We have taken tests a week before the average farmer would begin cutting. The barley is decidedly green and immature then. The bushel weight would run 37 lbs. and the extract content of the malt 65%. This is a week before any farmer would go into the field to cut,—the heads showing a green tinge. However in a week's time tests of samples would show a bushel weight of 45 lbs. and 74% extract. The interesting thing is waiting until it is dead ripe,—that brings that extract above what the average has been. We have investigated this during the past year particularly. We have had a very marked increase in extract in the areas where climatic conditions permit delayed cutting. That is the only argument for combining barley. Then they are forced to let that barley reach full maturity because if they cut it before then the moisture content is too high.

The barley must reach full maturity before the mechanism is set up for making the protein soluble in the malting process. So there are a lot of things from our experimental work that we have been able to get the information back to the growers—getting a response that way and increasing the barley quality of our varieties now being grown.

Question: "Have you noted any increased acreage on barley under Canadian conditions?

Acreage Will Increase

Dr. Dickson: We also get information from Canadian Experimental Stations, and have a record of the demand for "Wisconsin Pedigreed 38" seed each year. We shipped eight or ten carloads of "Wisconsin 38" seed to the Canadian barley growers. However, the yield differential is not as great as you go North.

In the major portion of our malting barley area barley is grown as a cash crop or as a feed crop, one or the other depending on the market price in rela-

tion to diversified farming. That makes your problem different than in the Red River Valley where barley is grown as a grain crop. They will specialize there with large acreage in that particular grain crop. In the other areas of the United States the average farm has from 10 to 20 or perhaps 40 acres of barley and will sell for cash if the prices are high or will use it as a feed grain if the prices are not satisfactory in relation to other feed grain.

Our farm management division of Wisconsin has made a survey every three years of farm incomes covering the dairymen without a cash crop and the dairy farm with a cash crop of barley. On 1600 farms there was a difference on the average of $500 increased income to the farm that was growing 10 acres of barley which was sold as a cash crop. The figure was $1600 for the average dairy farm and he would add $500 for a ten acre crop of barley to his annual income, —which has been quite a factor in bringing barley back into the diversified farming plan of the Upper Mississippi Valley. As it comes in as a cash crop I am confident the farmer will be receptive to the development of better quality.

Fertilizer Enlarging Factor

Under farming conditions in the Mississippi Valley area the live-stock has been the major factor in most farms. The net result has been that the farmer has been putting back on his soil organic material and manure, but relatively little potash or phosphate. He has built up the nitrogen content available to July or August but has continuously had a deficiency in potash and phosphate.

We have made a careful survey of fields put in under contract basis. They show only 10 parts per million of phosphate and for good barley production they need 125. By adding this phosphate and potash we have found that we will get some increase in yield. It will run from no increase to 10 or 12 per cent increase, but we are increasing the malting quality of that barley about 50%. It brings plumpness to the kernel by reducing the protein, and we are making a mellow, plump, better matured barley if we add this fertilizer. So there are other factors,—it is not just climate. It is soil, climate, economic conditions, and the general management program on the farms that determines the quality.

Question: "Would you care to tell us anything about Winter barley?"

Dr. Dickson: We have run malting tests on Winter barley for about four years. In general all Winter barley of the Tennessee type is a very good quality barley based on our preliminary malting work. The extract is from 76 to 77 per cent, being 1 to 2% higher in extract than our Spring barley. The protein is in line. It is mellow until we get into Western territory. Not much acreage as yet as it is not sufficiently Winter-hardy to get far enough north to get much acreage. We have been looking for such a barley for years to use in our program that we might cultivate a Winter barley that we could use in this area. If such a variety was found that would stand our Winters it would produce quality over our Spring barley, as barley quality is tied up with the hot period in July. The critical period is from heading period until it ripens; with Winter barley we could cut it before the hot weather comes on.

Another practice we have to get away from is that the average farmer in our area puts in wheat first, then oats, and before he puts in his corn he seeds his barley. Where he puts in barley for a cash crop, we have asked him to plant barley just as soon as he can get on the ground. If we could get a Winter barley we would still gain about three weeks more and I think we would get a better quality. At the present time the yield for malting of Winter barley is just a drop in the bucket."

Question: "How is the Winter barley yielding?"

Winter Barley Better

Dr. Dickson: In the areas where it will not Winter-kill the yield is better than on the Spring barley. They get yields com-

parable with our yield of the best Spring barley.

Question: "What kind of Winter barley?"

Dr. Dickson: It is of the Tennessee Winter six row Manchurian type. As you go west of the Mississippi River it is of the Hooded barley with a flinty kernel that is not suitable for malting. It is primarily a feed barley. Some of you have handled Western barley from Washington and Oregon. We have a surplus of 1,500,000 bushels of 2 row barley out there. It is going to be quite a factor in replacing Canadian Barley. They can get their high extract from that two row Western barley. So it will answer the purpose of the Canadian barley which they have brought in when the extract was low. This is replacing wheat acreage. In the Paloouse area they are growing it on summer fallow and getting good quality. It is malted separately from the six row, and then crushed and the brewers mix it in afterwards.

Who Originated Scab?

Question: "What was the origin of barley scab?"

Dr. Dickson: It came in badly when barley followed corn in the crop rotation. The corn stalks on the surface of the ground over the winter carried the scab organism. This produced the spores which spread back on wheat or barley when it was heading. When corn was grown after corn we did not have any trouble because the corn stalks were plowed under and the corn put on the same ground. Then we started the practice of running a disc over the corn stalks and we put wheat or barley on the old corn land. In 1924 or 1925 this scab disease began to come in. The stalks on the surface of the ground formed the source of spreading this organism into the heads of wheat and barley. All we need then is moisture to start it off. Where we have trouble primarily is where the spring barley acreage overlaps the corn area.

As we go north the other type of non-scab blight comes in when we get beyond the corn belt. You have got to have warm weather or humid weather when the barley is heading, or shortly afterward, to have scab develop. So the reason we have it only one year out of four or five — it so happens that then the rains come just at the right time to develop it. On the other hand we have a source of potential scab damage.

Question: "If the corn ground was plowed it would not be so bad?"

Dr. Dickson: Yes, we can get away from it by plowing. If you cover up those corn stalks and your neighbors do it as well. In all the barley varieties we are developing we are putting in scab resistance. We are using some barleys for this purpose of no commercial value, but scab resistant, and also stem rust resistant.

(Dr. Dickson then illustrated the

composition of a barley kernel on the black-board.

Extract, Enzymes, Nitrogen, Yeast

Extract is the total amount of dry material in this malt which by the use of these enzymes a maltster can take out in soluble form. If conditions are right he should get 72, 74 or 75% extract from that malt. In other words, almost 75% is taken out in that brewing process and the rest of it is insoluble. He is also interested in the amount of soluble nitrogen. That determines the action of the yeast in the fermenting process. He should have around 25% of the total protein in his extract. If he has got that, and the other things I mentioned, he is pretty well taken care of. The maltster has to vary his conditions with different types of barley, and the brewer has to vary his with different types of malt. So they must vary their processes to suit conditions.

In this country we are using about 70,000,000 bushels of barley from all these areas and the problem is to get it to the malt houses and keep it separate from different areas. In 1912 there was no such problem—it was a local problem. That is the reason I say we must get together on these common problems as a group if we are to solve them.

Question: "What can be done to lower the percentage of skinned barley?"

Spouting, Moisture, Factor In Skining

Dr. Dickson: That happens in the elevator or in the farmer's threshing. As to handling in the elevator, on the basis of some 200 to 300 samples we found that if you get the barley too dry you are going to have more damage from skinning than if you have a fair amount of moisture. We had more damage in 1934 when the moisture content was 10 to 11 percent than we had in years when the moisture content was higher. The reverse is true on the farm—if he tries to thresh when moisture content is high he will have skinned barley.

Question: "Is it the speed of the bucket or some other device in the elevator that makes the most trouble?"

Dr. Dickson: Have had no experience myself in the operation of larger terminal elevators so will not be able to answer your question. I think the big factor is the distance you drop the barley and what it hits when it drops.

As an example—they were loading barley in a vessel with a 50 to 75 feet drop. It was striking against the side of the vessel. We got samples where it dropped down into the hold. They had increased the skinning about 50%. We changed that so that the spouts dumped into the middle and there was much less skinning.

Also in elevating where it is striking against a hard surface with force, that would cause damage. Some country elevators when starting to handle barley again used a full stream without much attention to angles. Their barley was just ruined. That has been done away with in most of the country elevators at the present time.

Question: "Do you know anything about sixty-day barley? We get an occasional car."

Dr. Dickson: We do not know of it by that name. However there is a very early Finn Barley grown in the black soil area of Northern Alberta to mature ahead of early frost conditions. It is giving them a good yield. We have tested it. It runs as high as 80 to 82 per cent extract. When planted at Madison it ran about 80%. It has a number of qualities which are somewhat objectionable. Of course, being very early it is extremely limited in area in which it can be grown. One elevator had 1000 bushels and he put it out on contract basis in Oregon and Washington fields. He said he had a total net loss of about $12,000. His average yield was seven bushels.

★

BARLEY FIELD DAY

BARLEY FIELD DAY, held at Madison, Wisconsin, on July 13th concurrent with the meeting of the Executive Committee of the Malt Research Institute, offered an opportunity to show the members of the industries the barley varieties, the barley breeding program and the barley testing work being conducted through the co-ordinated program on barley improvements. Over one hundred visitors representing all phases of the barley handling, selling, malting, brewing, and distilling industries attended the affair.

A discussion of the agricultural experiment station's responsibility in coordinating agricultural research with industrial use of farm products by Chris. L. Christensen, Dean and Director of the Wisconsin College of Agriculture and the Wisconsin Agricultural Experiment Station and was followed by a discussion of the barley breeding program by O. S. Aamodt, Chairman of the Agronomy Department, University of Wisconsin. The afternoon was spent in inspecting the barley variety test plots and other experimental work. The group present voted to make the barley field day an annual event.

Malt Institute Organizes Research Program

THE executive committee through its subcommittees on malting and, brewing are making final arrangements for the use of the barley of the two varieties Oderbrucker and Pedigree 38 produced under contract by farmers.

The subcommittee on malting consisting of Christ Kurth Jr., H. H. Ladish and Acting Chairman, J. G. Dickson, have selected the Ladish-Stoppenbach Malting Company with the malting plant at Jefferson Junction, Wisconsin to malt the barleys. A committee consisting of G. L. Becker, Paul Esselborn, Louis Ehrenfeld, Marcus Maegerlein and George Sippel, Chairman, was appointed to select the companies to conduct brewing experiments on the lots of malt and arrange a standard record sheet and methods of evaluating the products made from the malts.

The barleys on the contract fields are being harvested, assembled and shipped to the selected malt house at the present time.

The Malt Research Institute has published a pamphlet entitled "Grow and Market Good Quality Barley" copies of which can be secured by writing the Secretary, Box 2039, Madison, Wisconsin. Large quantities of the folder can be furnished at cost of printing.

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TO GUARD AGAINST "CHIEFKAN" WHEAT

THE Associated Millers of Kansas Wheat announces completion of plans for making a survey, prior to the 1940 wheat harvest, of the Kansas districts in which "Chiefkan" wheat is grown to protect themselves against the danger of this inferior variety being milled into flour.

Recent tests conducted under supervision of Kansas State College have confirmed the long continued complaints of millers and bakers against the milling quality of "Chiefkan." Flour ground from it is so definitely inferior that bakers find it impossible to make satisfactory bread from it even though the percentage of "Chiefkan" in the miller's wheat blend may be relatively small. So far the area planted to "Chiefkan" is only about three to five per cent of the Kansas acreage.

Not Readily Distinguishable

UNFORTUNATELY the "Chiefkan" berry cannot be readily distinguished from the berry of good milling varieties, so that identification can only be effected while the wheat is in the field.

BUSIEST IN TWELVE YEARS

WE are in the early stages of one of the finest grain rushes we have experienced in twelve years. Wheat is arriving at the Lakehead in tremendous volume and all the terminal elevators, including our own, are working at top speed all day and most of the night. — R. B. Pow, Superintendent, Reliance Grain Company, Ltd., Port Arthur, Ont.

REVISION OF INSPECTION MANUAL

ELEVEN revised sheets for insertion in the place of the same numbered sheets in the Grain Inspectors' Manual will be distributed soon to all persons now having copies of this publication.

The revisions include the changes which have been made in procedure during the past year since the manual was issued.

TO CELEBRATE NATIONAL FEED WEEK

NATIONAL Feed Week will be celebrated this year from October 16th to 21st. Everyone in a position to do so should assuredly get behind this worth while movement.

NORTHWESTERN MALT PLANT OPERATING

SIX weeks after the kiln house fire suffered on August 4th by the Northwestern Malt & Grain Company, Chicago, the plant was operating again, states Mr. G. W. Hales, President. The damage to stock was negligible so that service to customers was uninterrupted.

Contrary to published reports the blaze was no where near as damaging as at first indicated.

SOCIETY NEEDED MORE THAN EVER

IN the event of war by the U. S., and who knows what turn events will take, an ounce of precaution is worth tons of prescriptions. With the press carrying accounts of espionage and sabotage it would seem highly desirable that new chapters of the Superintendents' Society be formed in every location to best ward off any lurking danger. Accounts of those remembering difficulties and threatening circumstances between 1914 and 1917, not to mention afterwards, attests to the wisdom of this suggestion. A line to your Secretary will doubtless put the necessary wheels into the desired motion. Act now!

SAFETY CONGRESS TO MEET

WHAT do 10,000 safety leaders talk about when they get together? The answer will come at the 28th National Safety Congress, which opens October 16 in Atlantic City, N. J., for five days.

The Congress is the supreme war council of organized safety. Here forces are marshalled and strategy is planned. There can be no appeasement. It is a fight to the finish. The enemy, which in the last three years has taken the lives of more Americans than all the nation's wars, must be defeated.

What do these thousands of safety workers talk about? Everything — for accidents appear in countless guises. Every phase of our national life — the factory, the home, the highway, the farm, the school — will be probed during the 140 sessions. More than 500 speakers and discussion leaders will reveal for public benefit the results of years of research and experimentation.

Hour after hour in Atlantic City's huge convention hall safety workers will absorb expert advice. They will hear plans and procedure mapped for next year. They will master the lessons of experience and painstaking investigation. They will listen as speakers unfold the drama of conflict with injury and death.

Once a year safety leaders have this opportunity to form friendships, exchange ideas, talk over their problems. Once a year, through mutual acquaintance, they solidify their ranks for a new and united assault.

The human side of accidents will come under even closer scrutiny this year. A psychiatrist, a physician and two personnel experts will discuss the psychological reasons which lie behind many accidents. Worry over sickness, finances or domestic strife, these speakers will show, may distract a worker's mind from the job, and injury is the result.

These are only a few of the activities which confront the Congress delegates. They also will view 130 exhibits at the exposition to be held in connection with the Congress, where the recent developments in safety devices for the highway and industry, including first aid, will be demonstrated.

★

SEZ ZEKE WISEACRE

Be mighty fine, wouldn't it, if ye wuz as safe from accidents as ye be from snow in August. (Ed. Note: Australian and South American papers please don't copy.)

"Scoured Wheat"

By T. C. MANNING,
Uhlmann Grain Company, North Kansas City, Mo.
President, Superintendents' Society

WHAT IS SCOURED WHEAT? Naturally it is assumed that scoured wheat is that which has been put through one or more of the various machines on the market designed for the purpose of scouring.

Every year for the past several years the question — "What is Scoured Wheat?" — has become more annoying and costly to the Grain Trade.

What percent of so called "SCOURED WHEAT" is allowed in the various grades? The Standardized Grain Grades do not give an allowable percent . . . The terminal elevators are being penalized by the various inspection departments for that which is unavoidable if the grain as it comes to them is going to be preserved.

In the days before the advent of the combine the farmer shocked or stacked his wheat, giving it a chance to cure in that manner before he thrashed it. Now a very large percent of the wheat goes direct from the stubble to the elevator and the "curing" takes place in the elevator. This requires turning from one bin to another. This process of turning, or running of grain in the modern elevator, does not mean that the wheat is mechanically scoured — though it may to some extent give the wheat the appearance of having been scoured. The turning of the wheat is essential to keeping the wheat sweet, and in a good many cases from becoming "SICK WHEAT."

The "SCOURED" appearance of the wheat comes from the action of the cups running at high speed, the fall into the garner — a drop of twenty feet, then into the scales — another drop of twenty feet, then through the belt loader and again through the tripper to the bin. At the bin it falls from 80 to 120 feet at the start of the filling of the bin with a lessing fall as the bin fills.

The question of scoured wheat always comes up the last part of the grain year, after the grain has been handled in the elevator for treating for insect infestation, curing, consolidating, etc., and all of this at considerable cost to the operator in power, labor and shrink.

TAG CORRECTION TABLE

A TABLE for directly reading the corrections to be made to the Tag-Heppenstall instrument moisture determination for the factors given and the temperatures of the grain being tested is now available from your Grain Supervisor. Since the issuing of the first temperature correction table several changes in the Tag Meter charts have been made which seem to warrant the revision of the table which is now ready for distribution.

A unique device will soon be placed on the market for quickly and accurately applying these temperature correction tables. It is a cylindrical chart that can be rotated by a knob so that only the line of figures is visible that represents the computed temperature corrections for the grain temperature involved in any one particular moisture determination.

★

TRADE PAPER EDITOR DIES

JOHN F. FLEMING, 68, publisher of Grain & Feed Review, Minneapolis, passed away on July 27th. His son, William D., editor of the publication, is among the survivors.

★

THANKS FOR SWELL RESPONSE

THANKS for the swell response to our appeal in the last number about using the post card enclosed with each copy of "GRAIN." That's the kind of co-operation that really counts!

Every hour some grain or processing Super is in need of something or other, and we welcome the opportunity to help steer all inquiries in the right direction.

And if you don't find what you want on the post card enclosed with this number of "GRAIN" — which card of necessity only carries advertised products — then just use the space below to let us know what you want. We relish the chance to assist you. And as Kate Smith says: "Thanks for listen'n.' "

★

Obedience is not slavishly to obey this man or that, but is that cheerful mental state which responds to the necessity of the case, and does the thing without any back talk — uttered or unexpressed.

★

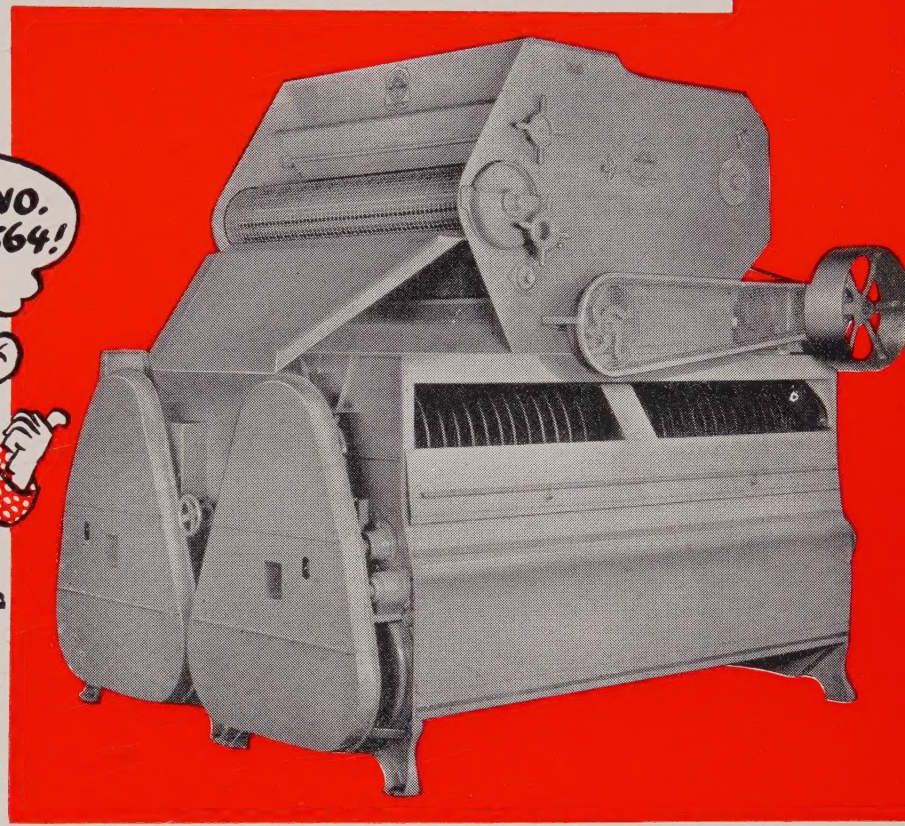
SEZ ZEKE WISEACRE

There be many a Super who finds time in busy August to worry his dust-caked head about the Missus and the Kids away at some durn vacation resort.

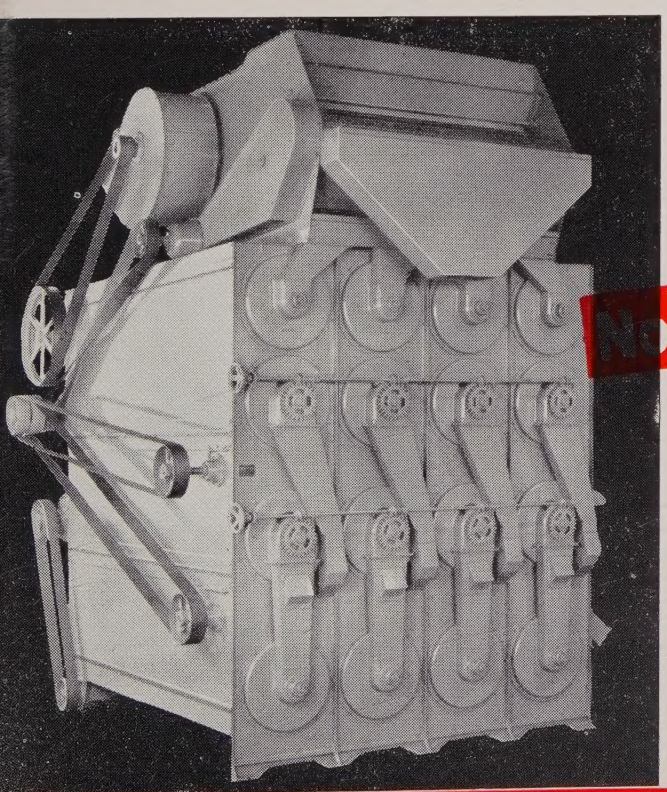
Discs and Cylinders Combined or All-Cylinder Separation

For More Bushels Cleaned Better, Choose from the Hart-Carter Line!

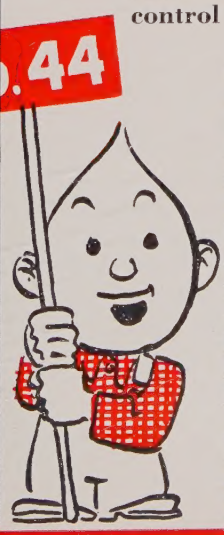
● Where high capacity grain cleaning is required at high standards of accuracy, efficiency and thoroughness — Hart-Carter offers the greatest value in grain cleaners—giving you a choice between disc-cylinder, or straight cylinder separation. In the No. 2564 Carter Disc - Cylinder Separator, discs and cylinders have been combined to give you one of the greatest grain cleaning systems ever assembled. Carter Discs insure exactness and fineness of separation, while Hart indented Cylinders provide flexibility in results. In one operation, at high capacity, the Carter Disc-Cylinder Separator performs five major separations in addition to scalping and aspiration. It cleans barley thoroughly, with amazingly small shrinkage, separates spring wheat from durum, and is widely used for cleaning oats, rye and buckwheat. Compact in size, it is unusually economical in its power requirements.



No. 2564 Carter Disc-Cylinder Separator



The No. 44 Hart Uni-flow Separator Designed to Meet Terminal Needs



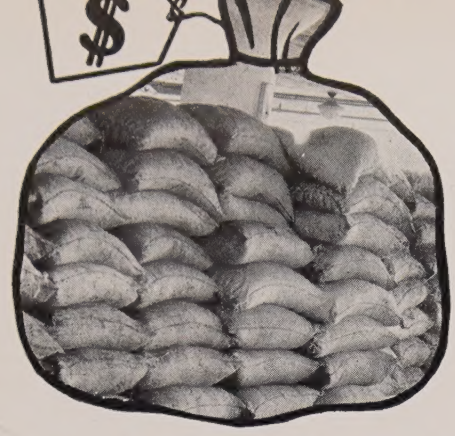
Wherever all-cylinder grain cleaning is favored, the No. 44 Hart Uni-flow Grain Separator, designed to meet the giant capacity requirements of terminal elevators, offers exceptional results. It combines many exclusive features that have widened the flexibility, increased the efficiency and capacity and simplified and improved the control of cylinder separations.

An important factor in achieving these results is the Hart Uni-flow control, a positive, power-driven mechanism, which maintains a uniform flow of grain and uniform grain line in the cylinders at all times. A complete cleaner with scalping and aspiration included, the Hart Uni-flow Grain Separator can be used to clean and grade by length — wheat, durum, rye, buckwheat, barley or oats. Judged per dollar of investment and per unit of power required, it is a truly remarkable value in standard terminal elevator equipment! *WRITE FOR FREE DESCRIPTIVE CATALOG FOLDERS ON EITHER OR BOTH OF THESE EFFICIENT HEAVY DUTY MACHINES TODAY!*

HART-CARTER COMPANY

706 Nineteenth Avenue N. E. Minneapolis, Minn.

Expanding Horizons



IN the grain and grain processing field warehousing is playing an increasingly important role and each year sees more and more firms taking advantage of this convenient means of expanding flexibly and increasing their working capital. Field warehousing enters into the picture wherever grain or grain products are handled on a volume basis.

Grain and grain products are being "warehoused" both on land and on water . . . in elevators, warehouses and in grain carrying boats, which literally are huge portable warehouses. One of these giant vessels has a capacity of 650,000 bushels. Numerous smaller boats can accommodate from a sixth to two-thirds of this capacity.

Field warehousing was used more or less as an emergency financing medium until about ten years ago. Interestingly enough it started largely with agricultural commodities. Its growth has been sensational. It is estimated that over $100,000,000 in new loans were based on field warehoused collateral during the past year, and the acceptance of this method of warehousing as a financing instrument that fits conditions as they exist today is constantly increasing.

Bankers Have "Liquidity" Complex

IN these days when banks have a strong liquidity complex, field warehousing is being recommended more and more. Borrowers who used to find their unsecured notes accepted at the bank are being asked by the banker to segregate grain or processed grain as collateral, and are calling in Douglas-Guardian Warehousing Corporation to handle the operation and issue warehouse receipts.

Field warehousing also is playing an important role in the distribution of grain or grain by-products. Processors, for example, are enabled largely to ignore the seasonal trends in their sales and to space their production more evenly over the entire year. When inventory piles up in the slack season, they just call in the field warehouseman to work in friendly co-operation with the bank. Warehouse receipts are issued and thus inventory helps to carry itself as well as release funds for the carrying on of the business. It also is utilized by them when prices are rising and it seems good business to cover future requirements and additional accommodation would not be available through regular channels.

Processors use field warehousing as a means of strengthening their credit positions with the bank for the principle of field warehousing creates a most acceptable type of collateral for loans and permits a processor to qualify his finished products or inventories of grains or ingredients without shipping them from his own storage facilities or paying for transportation or handling costs.

The increased credit made available by means of field warehousing enables the grain handler or processor to conduct his business on a larger scale than otherwise. His profits are increased not merely because he can handle an increased business, but also by distributing his fixed charges over a larger volume, he actually makes a larger profit on each transaction. Field warehousing also will enable him to cover a larger trade territory by releasing money as needed, also enabling him to warehouse stocks at convenient distributing points.

More Business, More Profit

A SHIPPER who has used field warehousing a number of years notes these advantages: It makes available the amount of credit that is needed at a total cost for both interest and warehouse charges that is very favorable. It secures a degree of co-operation from the banker far greater than under the former days of open account. The line of credit when secured by warehouse receipts is also larger. Through ample working capital, as opposed to shortage of capital because of the inventory load, more business is transacted and larger profits enjoyed.

Field warehousing is already being extensively utilized in the infant soy bean industry with very great success. It is very likely processors will find much in common with the canning industry and field warehousing which have experienced many years of successful financing together. Field warehousing operations are being used to raise capital both on soy beans and their by-products, and enters extensively into profitable distribution as well.

Mountain Goes To Mohammed

THERE is nothing mysterious about field warehousing or a field warehouse. It is a public warehouse that goes to the commodity instead of having the commodity come to it. The inventory is actually and legally placed under the custodianship of a bona fide field warehouse company who is merely a public warehouseman under another name. Through the use of a field warehouse in the grain industry a processor or distributor owning inventory in grain or grain products can secure the advantage of warehouse receipts in raising capital for expanded activities.

The principle of field warehousing recognizes the basic fact that active inventory represents money in a form practically as liquid as funds in bonds or even in a checking account. Its function is to release frozen funds and put them back into productive work.

If grain products or ingredients are stored in a privately operated warehouse the collateral value amounts to nothing. In order to become liquid assets the custody must be removed from the possession of the shipper, processor or distributor, and transferred to a bona fide warehouseman—a company lawfully engaged in the business of storing goods for profit.

Procedure Simple

THE procedure is very simple. A recognized field warehousing company—such as Douglas-Guardian—is called in. To them is leased the premises in which the grain products or ingredients are stored. The warehousing company sends a competent representative who appoints a bonded custodian—usually an employee

—and instructs him as to his duties. Next the warehousing company issues warehouse receipts — which have the same advantage as receipts issued by metropolitan warehouse companies — in full accordance with the Uniform Warehouse Receipts Act. The receipts issued are either negotiable or non-negotiable, as directed, and are then available to the storing company to be used as collateral security as needed.

In a recent article in Traffic World, Dr. John H. Frederick, Professor of Transportation and Industry, University of Texas School of Business Administration cited these as main features of field warehousing which makes it attractive both to borrowers and lenders:

(1) The commodities are entirely under the control of the warehouseman subject only to the order of the bank holding the receipts.

(2) The commodities are stored at or near the point of manufacture where no transportation cost is added to the cost of manufacture before going into storage.

(3) All employes are bonded and the full responsibility of the warehouse company is behind every receipt.

(4) Almost any product that can be stored can be used as collateral under the field warehousing system.

(5) Special requirements for the preservation of each product are carefully observed by the warehouse organizations and the local manager, who has generally been trained especially for the goods he handles, is checked every so often by a traveling inspector.

★

BLUM TO VENEZUELA

VINCENT BLUM, Superintendent of the John E. Bastien Grain Company's Hayford Elevator at Chicago until July 14th, accepted a similar post at Caracas, Venezuela.

Grains and other agricultural commodities usually handled elsewhere in bulk have not heretofore been stored in Venezuela, being shipped out in bags at harvest time. The government is planning to erect a 100,000 bushel experimental elevator in which corn will be stored for six months. If this proves successful additional storage will be erected here and in other strategic locations for handling grains, coffee, beans, etc.

Vincent's contract is for one year and prior to sailing on July 21st he was quite enthusiastic about the move. Caracas is ten degrees north of the equator with an altitude of 2,000 feet; the weather is most agreeable.

NEW KANSAS CITY MEMBERS

CLAUDE DARBE (Simonds-Shields-Theis Grain Company Assistant Superintendent), who was elected Secretary-Treasurer of the Kansas City Chapter of the Society of Grain Elevator Superintendents recently, maintains that he expects to be kept mighty busy this coming year handling new memberships.

Mr. Darbe must know what he's talking about, for Kansas City enrolled eight new members alone. They are:

No. 421, William J. Rice, Standard Milling Co.;

No. 422, Ward E. Stanley, Great Western Elevator Co.;

No. 423, H. S. Probasco, Imperial Belting Co.;

No. 424, Pat B. Guminger, C. & G. Brake Lining & Bearing Co.;

No. 425, C. B. Chinn, Jr., C. & G. Brake Lining & Bearing Co.;

No. 426, Roy L. Herod, Langdon Supply Co.;

No. 427, H. D. (Herb) Hart, Bunting Hardware Co., and

No. 430, Earl M. McDonald, National Refining Co.

"We're going to run rings around the Minneapolis, Chicago and Fort William-Port Arthur Chapters," he challenges.

★

NEW MEMBERS

An even twenty new members joined the Supers' Society during the quarter ending June 30th, and five more followed suit during July. August is likewise starting off well, reports President T. C. Manning.

The inter-chapter feud is waxing furious with these Chapters leading: Kansas City 10; Chicago 8, and Minneapolis 2.

★

OUR APOLOGIES, GENTLEMEN

OUR apologies, gentlemen. Last month we published a picture of Mr. H. C. Brand, Quaker Oats Company, Cedar Rapids, Iowa, in a story kindly contributed by Mr. J. E. Grant of the Canada Malting Company, Winnipeg. Guess we'll have to take our printer to the conventions to get better acquainted.

POW FESTIVAL HEAD

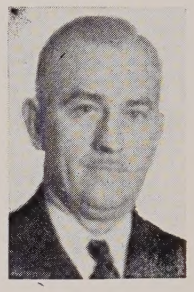
R. B. POW of Reliance Grain Company, Fort William, was re-elected president of the Northwestern Ontario Musical Festival board at their recent annual meeting. Mr. N. M. Paterson, head of N. M. Paterson & Company, Ltd., was chosen as honorary president.

OPENS FALL SEASON

THE Kansas City Chapter began the fall meetings with a meeting on the 19th. Thirty attended.

We had many interesting discussions and the several prospective members attending showed considerable interest.

Roy Browne of Davis-Noland-Merrill Grain Company was absent, being in the hospital with a carbuncle on his back. On last reports he was doing nicely.



Eric Matson, General Superintendent of Cargill's two plants here has become our newest member.

CHICAGO CHAPTER NEW MEMBERS

FIVE new members were added or reinstated to the Chicago Chapter of the Society of Grain Elevator Superintendents during the month of June, tying them for first place in the membership race now in progress between the Buffalo, Omaha, Minneapolis, Fort William and Kansas City local Chapters. The new men are:

No. 180, Sandy Keir, Arcady Farms Milling Co.;

No. 37, P. F. McAllister, Screw Conveyor Corp.;

No. 428, E. A. Josephson, Albert Schwill & Co.,

No. 429, C. T. Franks, Albert Schwill & Co., and

No. 251, Jack Waterbury, Stratton Grain Co.

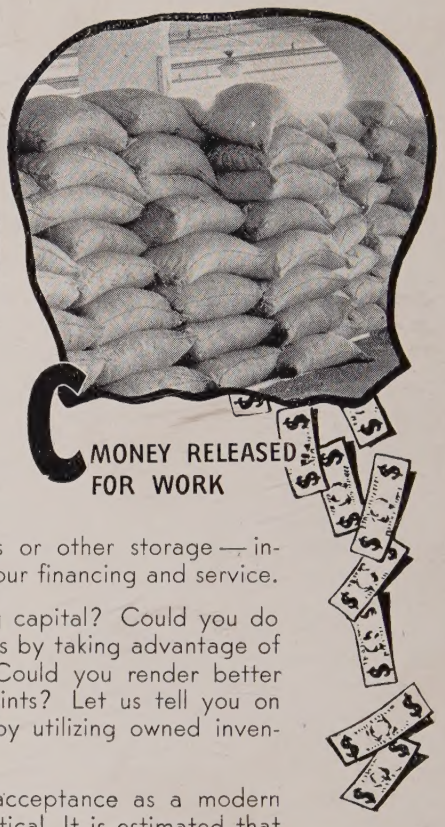
A new membership committee was appointed at the June Director's meeting and its members include: — C. J. Alger and Wm. Radke of Corn Products Refining Co.; Wm. H. Gassler of Rosenbaum Brothers; Gilbert Lane of Arcady Farms Milling Co.; Barney Weller of Weller Metal Products Co.; and H. G. Onstad. These Chapter "live-wires" are bending every effort to close the gap between their Chapter and that of Kansas City, the leader, and promise to make it a "hot" race from beginning to finish!

You can readily raise Capital on your Grain or Allied Products

WHEREVER STORED — in Elevators or Storehouses

A CUSTOMERS' INVENTORY FIELD-WAREHOUSED

B WAREHOUSE RECEIPTS LODGED IN YOUR VAULTS



C MONEY RELEASED FOR WORK

If you own grain, soy beans, feed, or other allied products — in elevators or other storage — investigate Field Warehousing by Douglas-Guardian as an important aid in your financing and service.

Does your investment in grain and grain products cripple you for working capital? Could you do **more business** if you had **more free capital?** Could you make larger profits by taking advantage of discounts and better accommodations made possible by ample cash? Could you render better service if stocks of grain could be Field Warehoused at intermediate points? Let us tell you on what favorable terms, and how speedily you can obtain needed capital, by utilizing owned inventory as collateral.

Field Warehousing has fairly swept into wide acceptance as a modern method of financing, because so sound and practical. It is estimated that over $100,000,000 in new loans were placed on Field Warehouse Receipts during the past year. Working with a Field Warehousing Company of recognized and demonstrated experience is very important. In using Douglas-Guardian Field Warehousing service you get the benefit of over 16 years' experience. Our service is nationwide. We go anywhere for business. It will be a pleasure to give you further and specific information.

GLAD TO MAIL YOU THIS FREE BOOKLET

in concise form

A comprehensive explanation of Field Warehousing and of Douglas-Guardian specialized service. Write for your copy, today.

Field Warehousing *by* Douglas—Guardian

DOUGLAS-GUARDIAN WAREHOUSE CORPORATION

Nation-Wide Field Warehousing Service

NEW ORLEANS, La. 118 N. Front St. | CHICAGO, ILL. 100 W. Monroe St. | NEW YORK, N. Y. 50 Broad St. | DALLAS, TEXAS Tower Petroleum Bldg. | ROCHESTER, N. Y. Commerce Bldg. | EASTON, MD. 428 South St. | MEMPHIS, TENN. 106 Porter Bldg. | TAMPA, FLA. 416 Tampa St.

CINCINNATI, OHIO Union Trust Bldg. | ATLANTA, GA. 2185 Belvidere SW | PORTLAND, ORE. 209 U. S. National Bank Bldg. | SPRINGFIELD, MO. Holland Bldg. | CLEVELAND, OHIO Union Commerce Bldg. | LOS ANGELES, CAL. Garfield Bldg. | SAN FRANCISCO, CAL. 485 California St.